Job Description

Number of Openings?	1
Indicated the number of openings you are recruiting for.	
This form will be used for all positions and	
descriptions.	
Reason for Request	New Position
Manager's Name	Yasuko Rikihisa
Department/Organization	Veterinary Biosciences
Job Title (Proposed Working Title)	Postdoctoral Scholar
Justification	To successfully accomplish NIH grant-funded
	biomedical research projects
Job Profile	Term (>12 months Max 5 years)

Job Description	The Postdoctoral Scholar will study molecular, cellular, and immunological mechanisms of obligatory intracellular bacterial infection in mammals and ticks by using knockout mutant bacteria, cell culture, ticks, and mice. This position will also be tasked to identify and characterize bacterial proteins and cognitive host cell molecules and signaling pathways. The long-term goal is to develop tick transmission-blocking vaccines and novel treatments for this group of pathogens. Require to clone and purify various molecules, ability to culture bacteria in mammalian and tick cells, use advanced microscopy, immunological assays including flow cytometry, handling ticks, and mice including blood and tissue sample collection, and genotype analysis, and various sterile techniques.
Physical	Standing for long periods of time
Requirements	Sitting/staring at computer screens and microscopes for long periods of time
	Exposure to animal dander and/or zoonotic diseases
	Exposure to needle sticks, hazardous chemicals, and/or biohazardous waste
Required Education	PhD in cell biology, molecular biology, virology, immunology, bacteriology, or a related
	discipline.
Desired Education	Molecular and Cellular Microbiology
Required Experience	Clone and purify various molecules, ability to culture bacteria in mammalian
	cells, transfection, Western blot, Microscopy, RT-PCR, statistical analysis
Desired Experience	Handling mice, pull-down assay, EMSA, genome sequence analysis

Dr. Yasuko Rikihisa

Distinguished University Professor

Member, National Academy of Sciences

Member, National Academy of Inventors

Laboratory of Molecular, Cellular, and Environmental Rickettsiology

College of Veterinary Medicine Department of Veterinary Biosciences

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